

CLAIMS

What is claimed is:

1. An interlock for a column, comprising a piston with a piston rod, such that the piston rod is disposed in a claw bush, the claw bush and the piston being disposed in a single- or multi-part plate, such that the piston and the claw bush can move in the single- or multi-part plate, the claw bush having at least two stages to apply force in a distributed manner, contour of the stages corresponding to an end of the piston rod and/or to an end of the column, an average radius of the first stage differing from an average radius of the second stage.
- 10 2. The interlock of Claim 1, wherein the claw bush has four stages, two different stages corresponding to the column and two different stages corresponding to the piston rod.
3. The interlock of Claim 2, wherein the stages corresponding to the column are designed symmetric to the stages corresponding to the piston.
- 15 4. The interlock of Claim 1, wherein an angle α of surfaces of at least one of the contours to a center axis of the column is between about 30° and 60° .
5. The interlock of Claim 4, wherein the angle α is about 45° .
6. A two-plate injection molding machine to process plasticized material, wherein the closure unit of the machine is designed with an interlock comprising a piston with a piston rod, such that the piston rod is disposed in a claw bush, the claw bush and the piston being disposed in a single- or multi-part plate, such that the piston and the claw bush can move in the single- or multi-part plate, the claw bush having at least two stages, to apply force in a distributed manner, contour of the

stages corresponding to an end of the piston rod and/or to an end of the column, an average radius of the first stage differing from an average radius of the second stage.

7. An interlock for use in an injection molding machine comprising a piston connected to a piston rod, the piston rod being disposed in a claw bush, the claw bush and the piston being disposed in, and movable relative to at least one plate, the claw bush including at least two stages, each stage having a contour for applying force in a distributed manner, the contour of the stages corresponding to an end of the piston rod and/or to an end of the column, an average radius of the first stage differing from an average radius of the second stage.
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8. A method for interlocking a column within a claw bush comprising providing a piston rod connected to a piston, the piston rod being disposed in a claw bush, the claw bush and the piston being disposed in, and movable relative to at least one plate, the claw bush including at least two stages, each stage having a contour for applying force in a distributed manner, the contour of the stages corresponding to an end of the piston rod and/or to an end of the column, an average radius of the first stage differing from an average radius of the second stage.
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9. The method of Claim 8, wherein the column is rotated about its longitudinal axis to lock within the claw bush.
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